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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,042	07/23/2001	Takumi Okauc	SONYJP 3.0-190	3744
530 7590 03/30/2007 LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK 600 SOUTH AVENUE WEST WESTFIELD, NJ 07090			EXAMINER POPHAM, JEFFREY D	
			ART UNIT	PAPER NUMBER
			2137	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/30/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/911,042	OKAUE, TAKUMI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jeffrey D. Popham	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Remarks***

Claims 1-24 are pending.

***Response to Arguments***

1. Applicant's arguments filed 1/8/2007 have been fully considered but they are not persuasive.

Applicant argues that Kamibayashi does not teach that the LCM includes a virtual storage device. In Kamibayashi, communications between the LCM and the PD occur via the LCM's PD I/F (numeral 5 in Figure 1). The mutual authentication process for mutually authenticating the MC and the LCM is performed between the SMS (2) within the LCM and the PD (via the PD I/F). Communication between the SMS and the PD I/F constitute mutual authentication of the MC and the LCM. Once mutual authentication communications there between have completed, the LCM and MC are mutually authenticated. Since both the SMS and the PD I/F are within the LCM, the virtual memory device (PD I/F) and the data processing apparatus (LCM).

Applicant also argues that Ueda does not teach an alternative mutual authentication process that is performed when the mutual authentication between the AV decoder (data processing apparatus) and optical disk (memory device) cannot be carried out. The disk of Ueda stores a mutual authentication key, as seen in Column 15, lines 8-21 and Column 37, lines 5-40, for example. This key is used between the AV decoder and the disk drive in order to perform mutual authentication of the decoder and the disk, since the disk itself has no processing means.

Additionally, it is noted that the specification does not refer to any "virtual storage", and as such, the examiner has taken this to be a synonym for "virtual memory".

### ***Claim Objections***

2. Claim 12 is objected to because of the following informalities: Claim 12 refers to "a virtual external storage device provided within the data processing apparatus". This appears to be an error that should read "a virtual storage device provided within the data processing apparatus". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 8, 9, 12-14, 20, 21, and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Kamibayashi (U.S. Patent 7,065,648).

Regarding Claim 1,

Kamibayashi discloses a data processing apparatus for receiving data from or delivering data to a storage device, the storage device being

external to the data processing apparatus and including a memory, the data received from the external storage device being reproduced from the memory and the data delivered to the external storage device being recorded in the memory, the receiving or delivering ordinarily being carried out on condition that mutual authentication between the data processing apparatus and the storage device is successful, the data processing apparatus comprising:

A virtual storage device (Column 12, line 22 to Column 13, line 16);

A first structure operable to alternatively execute the mutual authentication with the virtual storage device when the external storage device does not include a structure operable to execute the mutual authentication (Column 12, line 22 to Column 13, line 16); and

A second structure operable to receive the data from the external storage device or to deliver data to the external storage device when the mutual authentication with the virtual storage device is successful (Column 12, line 22 to Column 13, line 16).

Regarding Claim 8,

Claim 8 is a method claim that is broader than apparatus claim 1 and is rejected for the same reasons.

Regarding Claim 12,

Claim 12 is a computer readable medium claim that is broader than apparatus claim 1 and is rejected for the same reasons.

Regarding Claim 13,

Claim 13 is an apparatus claim that is broader than apparatus claim 1 and is rejected for the same reasons.

Regarding Claim 20,

Claim 20 is a method claim that is broader than apparatus claim 1 and is rejected for the same reasons.

Regarding Claim 24,

Claim 24 is a computer readable medium claim that is broader than apparatus claim 1 and is rejected for the same reasons.

Regarding Claim 2,

Kamibayashi discloses a structure operable to first execute the mutual authentication with the external storage device by initially checking whether the external storage device includes a structure operable to execute the mutual authentication (Figure 9; and Column 12, lines 38-39).

Regarding Claim 9,

Claim 9 is a method claim that is broader than apparatus claim 2 and is rejected for the same reasons.

Regarding Claim 14,

Claim 14 is an apparatus claim that is broader than apparatus claim 2 and is rejected for the same reasons.

Regarding Claim 21,

Claim 21 is a method claim that is broader than apparatus claim 2 and is rejected for the same reasons.

4. Claims 1, 8, 12, 13, 20, and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Ueda (U.S. Patent 6,289,102).

Regarding Claim 1,

Ueda discloses a data processing apparatus for receiving data from or delivering data to a storage device, the storage device being external to the data processing apparatus and including a memory, the data received from the external storage device being reproduced from the memory and the data delivered to the external storage device being recorded in the memory, the receiving or delivering ordinarily being carried out on condition that mutual authentication between the data processing apparatus and the storage device is successful, the data processing apparatus comprising:

A virtual storage device (Figures 14-16; Column 23, lines 26-61; and Column 37, lines 5-40);

A first structure operable to alternatively execute the mutual authentication with the virtual storage device when the external storage device does not include a structure operable to execute the mutual authentication (Figures 14-16; Column 23, lines 26-61; and Column 37, lines 5-40); and

A second structure operable to receive the data from the external storage device or to deliver data to the external storage device when the mutual authentication with the virtual storage device is successful (Figures 14-16; Column 23, line 49 to Column 24, line 17; and Column 25, lines 1-16).

Regarding Claim 8,

Claim 8 is a method claim that is broader than apparatus claim 1 and is rejected for the same reasons.

Regarding Claim 12,

Claim 12 is a computer readable medium claim that is broader than apparatus claim 1 and is rejected for the same reasons.

Regarding Claim 13,

Claim 13 is an apparatus claim that is broader than apparatus claim 1 and is rejected for the same reasons.

Regarding Claim 20,

Claim 20 is a method claim that is broader than apparatus claim 1 and is rejected for the same reasons.

Regarding Claim 24,

Claim 24 is a computer readable medium claim that is broader than apparatus claim 1 and is rejected for the same reasons.

***Claim Rejections - 35 USC § 103***



The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 5-7, 10, 15, 17-19, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamibayashi in view of Dondeti (U.S. Patent 6,240,188).

Regarding Claim 3,

Kamibayashi discloses that the first structure executes the mutual authentication with the virtual storage device by applying a distributed key and another authenticating key previously stored in the virtual storage device (Column 12, line 22 to Column 13, line 16); but does not disclose a key is provided for authenticating distribution of an enabling key block, the key having been previously enciphered by the enabling key block, the enabling key block containing enciphering data for enciphering renewal keys which are located on various paths of a hierarchical key tree structure, the hierarchical tree structure having a plurality of keys associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, whereby a given one of the plurality of paths of the key tree structure extends from a specific one of the roots to a particular one of the leaves of the key tree structure, the leaves of the tree structure being respectively associated with a plurality of

data processing apparatuses, the enciphering data including upper-rank keys in the tree hierarchy which are enciphered by lower-rank keys.

Dondeti, however, discloses that a key is provided for authenticating distribution of an enabling key block, the key having been previously enciphered by the enabling key block, the enabling key block containing enciphering data for enciphering renewal keys which are located on various paths of a hierarchical key tree structure, the hierarchical tree structure having a plurality of keys associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, whereby a given one of the plurality of paths of the key tree structure extends from a specific one of the roots to a particular one of the leaves of the key tree structure, the leaves of the tree structure being respectively associated with a plurality of data processing apparatuses, the enciphering data including upper-rank keys in the tree hierarchy which are enciphered by lower-rank keys (Column 3, line 48 to Column 4, line 21). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the hierarchical key tree structure of Dondeti into the recording and reproducing apparatus of Kamibayashi in order to make the system scalable to allow for the addition and modification of many processing apparatuses.

Regarding Claim 10,

Claim 10 is a method claim that is broader than apparatus claim 3 and is rejected for the same reasons.

Regarding Claim 15,

Claim 15 is an apparatus claim that is broader than apparatus claim 3 and is rejected for the same reasons.

Regarding Claim 22,

Claim 22 is a method claim that is broader than apparatus claim 3 and is rejected for the same reasons.

Regarding Claim 5,

Kamibayashi as modified by Dondeti discloses the apparatus of claim 3, in addition, Dondeti discloses means for subjecting the enabling key block distribution authenticating key to a version controlling process by executing a process for renewing individual versions (Column 1, lines 30-46; and Column 3, line 48 to Column 4, line 21).

Regarding Claim 17,

Claim 17 is an apparatus claim that is broader than apparatus claim 5 and is rejected for the same reasons.

Regarding Claim 6,

Kamibayashi does not disclose that a key tree structure is provided comprising a plurality of keys associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, and having a plurality of paths whereby a given one of the paths extends from

a specific one of the roots to a particular one of the leaves of the key tree structure, a plurality of data processing apparatuses being respectively associated with the leaves of the tree, and the data processing apparatus further comprises: means for enciphering leaf-keys associated with the leaves using a storage key that is proper to an individual one of the data processing apparatuses and then storing the enciphered leaf-key in a memory means within a corresponding data processing apparatus.

Dondeti, however, discloses that a key tree structure is provided comprising a plurality of keys associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, and having a plurality of paths whereby a given one of the paths extends from a specific one of the roots to a particular one of the leaves of the key tree structure, a plurality of data processing apparatuses being respectively associated with the leaves of the tree (Column 3, line 48 to Column 4, line 21), and the data processing apparatus further comprises: means for enciphering leaf-keys associated with the leaves using a storage key that is proper to an individual one of the data processing apparatuses and then storing the enciphered leaf-key in a memory means within a corresponding data processing apparatus (Column 3, line 48 to Column 4, line 21). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the hierarchical key tree structure of Dondeti into the recording and reproducing apparatus of

Kamibayashi in order to make the system scalable to allow for the addition and modification of many processing apparatuses.

Regarding Claim 18,

Claim 18 is an apparatus claim that is broader than apparatus claim 6 and is rejected for the same reasons.

Regarding Claim 7,

Kamibayashi does not disclose that a key tree structure is provided comprising a plurality of keys respectively associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, and having a plurality of paths that extend from the roots to the leaves of the key tree structure, a plurality of data processing apparatuses respectively corresponding to the leaves of the tree and to leaf-keys that further correspond with the leaves; and a device key block is stored in a memory within the processing apparatus, the key block being an assemblage of ciphered keys comprising mutually different individually enciphered node keys of plural steps extending from the leaves of the tree structure up to upper-rank keys of the tree structure.

Dondeti, however, discloses that a key tree structure is provided comprising a plurality of keys respectively associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, and having a plurality of paths that extend from the roots to the leaves of the key tree structure, a plurality of data processing apparatuses

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respectively corresponding to the leaves of the tree and to leaf-keys that further correspond with the leaves (Column 3, line 48 to Column 4, line 21); and a device key block is stored in a memory within the processing apparatus, the key block being an assemblage of ciphered keys comprising mutually different individually enciphered node keys of plural steps extending from the leaves of the tree structure up to upper-rank keys of the tree structure (Column 3, line 48 to Column 4, line 21). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the hierarchical key tree structure of Dondeti into the recording and reproducing apparatus of Kamibayashi in order to make the system scalable to allow for the addition and modification of many processing apparatuses.

Regarding Claim 19,

Claim 19 is an apparatus claim that is broader than apparatus claim 7 and is rejected for the same reasons.

6. Claims 4, 11, 16, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamibayashi in view of Dondeti, further in view of Harada (U.S. Patent 6,850,914).

Regarding Claim 4,

Kamibayashi as modified by Dondeti discloses the apparatus of claim 3, in addition, Dondeti discloses that only a proper data processing

apparatus is enabled to decode the enabling key block, whereas an improper apparatus is unable to decode the enabling key block (Column 3, line 48 to Column 4, line 21); but does not disclose the use of licensing the determine which data processing apparatuses are proper and which are not, or revoking improper data processing apparatuses.

Harada, however, discloses the use of licenses to determine which data processing apparatuses are proper and which are not and revoking an improper data processing apparatus (Column 5, lines 15-67). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the licensing and revocation system of Harada into the recording and reproducing system of Kamibayashi as modified by Dondeti in order to provide for dynamic revocation of data processing apparatuses, such that revocation lists can be updated in a timely and efficient manner, thus allowing all proper apparatuses to know which other apparatuses are proper and which are revoked.

Regarding Claim 11,

Claim 11 is a system claim that is broader than apparatus claim 4 and is rejected for the same reasons.

Regarding Claim 16,

Claim 16 is an apparatus claim that is broader than apparatus claim 4 and is rejected for the same reasons.

Regarding Claim 23,

Claim 23 is a system claim that is broader than apparatus claim 4 and is rejected for the same reasons.

7. Claims 2, 9, 14, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda in view of Ansell (U.S. Patent 6,367,019).

Regarding Claim 2,

Ueda does not disclose initially checking whether the external storage device includes a structure operable to execute the mutual authentication.

Ansell, however, discloses initially checking whether the external storage device includes a structure operable to execute the mutual authentication (Column 12, lines 30-41). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the copy security system of Ansell into the recording and reproducing system of Ueda in order to allow copyrightable content of digital storage media to be protected against unauthorized copying, whether the storage media is functional or non-functional.

Regarding Claim 9,

Claim 9 is a method claim that is broader than apparatus claim 2 and is rejected for the same reasons.

Regarding Claim 14,



Claim 14 is an apparatus claim that is broader than apparatus claim 2 and is rejected for the same reasons.

Regarding Claim 21,

Claim 21 is a method claim that is broader than apparatus claim 2 and is rejected for the same reasons.

8. Claims 3, 5-7, 10, 15, 17-19, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda in view of Dondeti.

Regarding Claim 3,

Ueda discloses that the first structure executes the mutual authentication with the virtual storage device by applying a distributed key and another authenticating key previously stored in the virtual storage device (Figures 14-16; Column 23, line 26 to Column 24, line 17; and Column 37, line 5 to Column 38, line 51);

But does not disclose a key is provided for authenticating distribution of an enabling key block, the key having been previously enciphered by the enabling key block, the enabling key block containing enciphering data for enciphering renewal keys which are located on various paths of a hierarchical key tree structure, the hierarchical tree structure having a plurality of keys associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, whereby a given one of the plurality of paths of the key tree structure

extends from a specific one of the roots to a particular one of the leaves of the key tree structure, the leaves of the tree structure being respectively associated with a plurality of data processing apparatuses, the enciphering data including upper-rank keys in the tree hierarchy which are enciphered by lower-rank keys.

Dondeti, however, discloses that a key is provided for authenticating distribution of an enabling key block, the key having been previously enciphered by the enabling key block, the enabling key block containing enciphering data for enciphering renewal keys which are located on various paths of a hierarchical key tree structure, the hierarchical tree structure having a plurality of keys associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, whereby a given one of the plurality of paths of the key tree structure extends from a specific one of the roots to a particular one of the leaves of the key tree structure, the leaves of the tree structure being respectively associated with a plurality of data processing apparatuses, the enciphering data including upper-rank keys in the tree hierarchy which are enciphered by lower-rank keys (Column 3, line 48 to Column 4, line 21). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the hierarchical key tree structure of Dondeti into the recording and reproducing system of

Ueda in order to make the system scalable to allow for the additional and modification of many processing apparatuses.

Regarding Claim 10,

Claim 10 is a method claim that is broader than apparatus claim 3 and is rejected for the same reasons.

Regarding Claim 15,

Claim 15 is an apparatus claim that is broader than apparatus claim 3 and is rejected for the same reasons.

Regarding Claim 22,

Claim 22 is a method claim that is broader than apparatus claim 3 and is rejected for the same reasons.

Regarding Claim 5,

Dondeti discloses means for subjecting the enabling key block distribution authenticating key to a version controlling process by executing a process for renewing individual versions (Column 1, lines 30-46; and Column 3, line 48 to Column 4, line 21).

Regarding Claim 17,

Claim 17 is an apparatus claim that is broader than apparatus claim 5 and is rejected for the same reasons.

Regarding Claim 6,

Ueda does not disclose that a key tree structure is provided comprising a plurality of keys associated with various roots of the tree

structure, nodes of the tree structure, and leaves of the tree structure, and having a plurality of paths whereby a given one of the paths extends from a specific one of the roots to a particular one of the leaves of the key tree structure, a plurality of data processing apparatuses being respectively associated with the leaves of the tree, and the data processing apparatus further comprises: means for enciphering leaf-keys associated with the leaves using a storage key that is proper to an individual one of the data processing apparatuses and then storing the enciphered leaf-key in a memory means within a corresponding data processing apparatus.

Dondeti, however, discloses that a key tree structure is provided comprising a plurality of keys associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, and having a plurality of paths whereby a given one of the paths extends from a specific one of the roots to a particular one of the leaves of the key tree structure, a plurality of data processing apparatuses being respectively associated with the leaves of the tree (Column 3, line 48 to Column 4, line 21), and the data processing apparatus further comprises: means for enciphering leaf-keys associated with the leaves using a storage key that is proper to an individual one of the data processing apparatuses and then storing the enciphered leaf-key in a memory means within a corresponding data processing apparatus (Column 3, line 48 to Column 4, line 21). It would have been obvious to one of ordinary skill in the art at

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the time of applicant's invention to incorporate the hierarchical key tree structure of Dondeti into the recording and reproducing system of Ueda in order to make the system scalable to allow for the additional and modification of many processing apparatuses.

Regarding Claim 18,

Claim 18 is an apparatus claim that is broader than apparatus claim 6 and is rejected for the same reasons.

Regarding Claim 7,

Ueda does not disclose that a key tree structure is provided comprising a plurality of keys respectively associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, and having a plurality of paths that extend from the roots to the leaves of the key tree structure, a plurality of data processing apparatuses respectively corresponding to the leaves of the tree and to leaf-keys that further correspond with the leaves; and a device key block is stored in a memory within the processing apparatus, the key block being an assemblage of ciphered keys comprising mutually different individually enciphered node keys of plural steps extending from the leaves of the tree structure up to upper-rank keys of the tree structure.

Dondeti, however, discloses that a key tree structure is provided comprising a plurality of keys respectively associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree

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structure, and having a plurality of paths that extend from the roots to the leaves of the key tree structure, a plurality of data processing apparatuses respectively corresponding to the leaves of the tree and to leaf-keys that further correspond with the leaves (Column 3, line 48 to Column 4, line 21); and a device key block is stored in a memory within the processing apparatus, the key block being an assemblage of ciphered keys comprising mutually different individually enciphered node keys of plural steps extending from the leaves of the tree structure up to upper-rank keys of the tree structure (Column 3, line 48 to Column 4, line 21). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the hierarchical key tree structure of Dondeti into the recording and reproducing system of Ueda in order to make the system scalable to allow for the additional and modification of many processing apparatuses.

Regarding Claim 19,

Claim 19 is an apparatus claim that is broader than apparatus claim 7 and is rejected for the same reasons.

9. Claims 4, 11, 16, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda in view of Dondeti, further in view of Harada.

Regarding Claim 4,

Ueda as modified by Dondeti discloses the apparatus of claim 3, in addition, Dondeti discloses that only a proper data processing apparatus is enabled to decode the enabling key block, whereas an improper apparatus is unable to decode the enabling key block (Column 3, line 48 to Column 4, line 21); but does not disclose the use of licensing the determine which data processing apparatuses are proper and which are not, or revoking improper data processing apparatuses.

Harada, however, discloses the use of licenses to determine which data processing apparatuses are proper and which are not and revoking an improper data processing apparatus (Column 5, lines 15-67). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the licensing and revocation system of Harada into the recording and reproducing system of Ueda as modified by Dondeti in order to provide for dynamic revocation of data processing apparatuses, such that revocation lists can be updated in a timely and efficient manner, thus allowing all proper apparatuses to know which other apparatuses are proper and which are revoked.

Regarding Claim 11,

Claim 11 is a system claim that is broader than apparatus claim 4 and is rejected for the same reasons.

Regarding Claim 16,

Claim 16 is an apparatus claim that is broader than apparatus claim 4 and is rejected for the same reasons.

Regarding Claim 23,

Claim 23 is a system claim that is broader than apparatus claim 4 and is rejected for the same reasons.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey D. Popham whose telephone number is (571)-272-7215. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571)272-3865. The fax phone



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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeffrey D Popham  
Examiner  
Art Unit 2137

  
EMMANUEL L. MOISE  
SUPERVISORY PATENT EXAMINER